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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/714,690
Filing Date: November 17, 2003
Appellant(s): BAGLEY ET AL.

Scott D. Paul
Steven M. Greenberg
950 Peninsula Corporate Circle
Boca Raton, FL 33487
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/08/2008 appealing from the Office action mailed 09/18/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,642,518	Kiyama et al.	06-1997
6,081,774	de Hita et al.	06-2000
6,374,209	Yoshimi et al.	04-2002
6,571,240	Ho et al.	05-2003
6,859,771	Xun et al.	02-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 3 is drawn to non-statutory subject matter. The stated claim falls within the statutory category of process. However, in order for the process to be statutory the

process must be 1) tied to another statutory class or 2) transform underlying subject matter to a different state or thing. Neither of these requirements are met by the claim and thus the method is not a patent eligible process under 101. The claimed steps of "locating", "adding", "incrementing," and "selecting" are of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. The Applicant has provided no explicit and deliberate definitions of "locating", "adding", "incrementing," and "selecting" to limit the steps to the stated steps being done by processor. The claims are broad enough to read on a human reading a textual paper, where the individual locates words and adds such words on another piece of paper, where multiple words that appear on the list are incremented by the individual by tallying as each word is found and words that have the highest value from the tally are written on another paper. Hence, the stated process is fully capable of being done by a human without the aide of a machine. Claim(s) **XXXXX** is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that

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[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).
[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

5. Claims 4-7 are rejected as being based upon a rejected based claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 1, 3, 7, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyama *et al.* (US 5,642,518) in view of Xun (US 6,853,771) in view of Ho *et al.* (US 6,571,240).

As to claim 1, Kiyama *et al.* teaches a keyword generation system comprising:

a content parser configured to parse individual words in a selected portion of content (see col. 4, lines 58-60) (e.g. The dividing of the words from the text is equivalent to a parser);

a dictionary of words and phrases (see col. 4, line 60) (e.g. A dictionary is being used when words are divided.) to a particular domain depending on the word detected).;

a list of keyword candidates comprising a plurality of words and phrases specific to said particular domain (see col. 4, lines 66-67) (e.g. A keyword list is

generated of the detected words corresponding to specific domains (see Figure 9);

a counter for each of said words and phrases in said list (see col. 4, lines 64-65) (e.g. a frequency of occurrence is equivalent to a counter since both are directly proportional to each other. Further, once a keyword is detected the count increases (see Figure 9, element w3); and,

a keyword generation process (see Figure 2, element 70) both coupled to each of said content parser (see Figure 2, element 10), dictionary (see col. 4, line 60) , said list (see Figure 2, elements 20 and 30), and said counter (see Figure 2, element 20 and 30) and also programmed (see col. 6, lines 22-39) (e.g. The use of a processor implies the programming portion) to identify said words and phrases specific to said particular domain in said selected portion of content (see Figure 2, element 30 and col. 5, lines 1-4 and Figure 9) (e.g. From Figure 9, the occurrence frequencies are identified as well as the domain as seen by the element columns, w3), to write said identified words and phrases to said list of keyword candidates (see col. 5, lines 5-7) (e.g. The extracted keywords are stored for new keywords and existing keywords are already in the dictionary (see Figure 9, element column, w1)) , to increment said counter for each of said words and phrases in said list each time said keyword generation process locates each of said words and phrases in said selected portion of content (see col. 5, lines 48-55) (e.g. In this cited portion the, word occurrence frequencies are updated depending on the word and incremented by domain and shown in Figure 9), and

to select one or more of said words and phrases in said list as keywords for said content based upon said counter for each of said words and phrases in said list (see col. 11. lines 59-65 and Figure 18) (e.g. The assignment of the keywords shows the selection of the keywords based on the occurrence frequency. The latter citation shows the keywords assigned).

However, Kiyama does not specifically teach the use of a parser parsing phrases.

Xun does teach parsing of content into phrases and words (see col. 4, lines 34-36, phrases, word).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have substituted the parser as taught by Kiyama *et al.* with the parser for parsing phrases and words as taught by Xun in order to obtain the predictable result of obtaining individualized units of text (see KSR vs. Teleflex, Rationales, B, D, and E).

However, Kiyama *et al.* in view of Xun do not specifically teach the dictionary specific to a particular domain.

Ho *et al.* does teach a dictionary of words and phrases specific to a particular domain (see col. 6, lines 62-col. 7, lines 3, domain specific dictionary) associated with the text (see col. 4, lines 40-50, phrases from documents).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified or improved the dictionary as taught by Kiyama *et al.* in view of Xun with the substitution of a domain-specific dictionary

as taught by Ho *et al.* for obtaining the predictable result of quicker retrieval (see Ho col. 4, lines 20-23) for information related to a specific domain (See KSR vs. Teleflex, Rationales B, D, and E).

8. Claims 3, 7, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyama *et al.* in view of Xun.

As to claims 3 and 8, Kiyama *et al.* teaches a keyword generation method comprising the steps of:

locating words and phrases (see col. 4, lines 58-60) in a selected portion of content (see Figure 3, obtain data of one text sequence 12), said words and phrases being specific to a particular domain (see col. 1, lines 4-5) (e.g. In the reference that keywords associated with a domain type is extracted and is thus specific to a particular domain depending on the word detected).

adding a single instance of each of said located words and phrases to a list of keyword candidates (see col. 5, lines 5-7);

for each located word and phrase which already had been added to said list of keyword candidates, incrementing a counter associated with said located word and phrase (see col. 4, lines 64-65) (e.g. a frequency of occurrence is equivalent to a counter since both are directly proportional to each other. Further, once a keyword is detected the count increases (see Figure 9, occurrence frequency w3); and,

selecting keywords from said list of keyword candidates based upon words and phrases in said list (see col. 11. lines 59-65 and Figure 18) (e.g. The assignment of the keywords shows the selection of the keywords based on the occurrence frequency. The latter citation shows the keywords assigned.) having a highest counter value (see Figure 17) (e.g. From the Figure, if the keyword has not been seen more than one time then it is assigned as the keyword to the specific domain. If it is has only been seen once then it is not assigned) (see Figure 18 and Figure 16, example)).

Kiyama *et al.* does not specifically teach selecting portion of content.

However, Kiyama does not specifically teach the use of locating phrases.

Xun does teach locating of phrases and words (see col. 4, lines 34-36, the use of a parser locates individualized units such as phrases, word).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have substituted the locating of words as taught by Kiyama *et al.* with the location of words and phrases as taught by Xun in order to obtain the predictable result of obtaining individualized units of text (see KSR vs. Teleflex, Rationales, B, D, and E).

As to claim 8, Kiyama in view of Xun teaches all of the limitations as set forth in the method claim 1 and further teaches the use of a computer readable medium (see Kiyama col. 6, lines 24-26, memory 110).

As to claims 7 and 12, Kiyama *et al.* in view of Xun teaches all of the limitations as to claims 3 and 8, above.

Furthermore, Kiyama teaches the step of repeated performing the locating, adding and incrementing steps for selected chunks of said selected portion of content until no content remains to be processed (see Figure 3, elements, 1, 11-16) (e.g. From the Figure, it is seen that the text is retrieved and processing is done until the text is completed (see Figure 4, sample document). It is obvious that the processing ends once all text has been analyzed.).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyama *et al.* in view of Xun in view of Ho *et al.* as applied to claim 1 above, and further in view of de Hita *et al.* (US 6,081,774).

As to claim 2, Kiyama *et al.* in view of Xun in view of Ho *et al.* teach all of the limitations as in claim 1, above.

However, Kiyama *et al.* in view of Ho *et al.* does not specifically teach the use of a list of common words for keyword generation.

de Hita *et al.* does teach the use of list of common words (see col. 3, lines 4-8) (e.g. pattern dictionary) coupled to keyword generation process (see col. 3, lines 51-61).

It would have been obvious to one of ordinary skilled in the at the time the invention was made to have modified the key word generation taught by Kiyama *et al.* in view of Xun in view of Ho with the inclusion of word removal common to

keywords as taught by de Hita *et al.* The motivation to have combined the two references involves the inclusion of context dependent information related to semantic relationships (see de Hit a *et al.*, col. 3, lines 3-8) in order to merge expressions that are similar (see de Hita *et al.,* col. 2, lines 9-13) for faster processing.

10. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyama *et al.* in view of Xun as applied to claim 3 above, and further in view of de Hita *et al.* (US 6,081,774).

As to claims 4 and 9, Kiyama *et al.* in view of Xun teach all of the limitations as in claim 3, above.

However, Kiyama *et al.* in view of Xun do not specifically teach removing from consideration every word and phrase in said list of keyword candidates that are common.

de Hita *et al.* does teach removing from consideration the keywords and words common in nature (see col. 3., lines 51-61 and see col. 11, lines 8-19) (e.g. From the cited sections it is the synonyms for the word or token is retrieved, which is one of the problems the reference tries to solve (see col. 2, lines, 11-14).

It would have been obvious to one of ordinary skilled in the at the time the invention was made to have modified the key word generation taught by Kiyama *et al.* in view of Xun with the inclusion of word removal common to keywords as taught by de Hita *et al.* The motivation to have combined the two references

involves the inclusion of context dependent information related to semantic relationships (see de Hit a *et al.*, col. 3, lines 3-8) in order to merge expressions that are similar (see de Hita *et al.*, col. 2, lines 9-13) for faster processing.

11. Claims 5, 6, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyama *et al.* in view of Xun in view of Yoshimi *et al.* (US 6,374,209).

As to claims 5 and 10, Kiyama *et al.* in view of Xun teach all of the limitations as in claims 3 and 8, above.

Furthermore, Kiyama *et al.* teaches selecting a string (e.g. word) in said selected portion of content (see Figure 3, elements 1 and 11-16) (e.g. The input text is the selection and words are extracted. It would have been obvious to select textual portions as an alternative means to obtain a sequence of data.);

adding said string to said list of keyword candidates (see col. 5, lines 5-10) (e.g. The comparison to the collection an the negligible word dictionary is made and added if the respective word is not found in the collection or negligible word dictionary);

However, Kiyama *et al.* in view of Xun do not specifically teach the detecting a variation in font attributes.

Yoshimi *et al.* does teach the detecting of words based upon font attributes (see col. 13, lines 1-35, character ornament, style and size is detected for important word).

It would have been obvious to one of ordinary skilled in the at the time the invention was made to have modified the key word generation taught by Kiyama *et al.* in view of Xun with the inclusion of font detection as taught by Yoshimi *et al.* The motivation to have combined the two references involves the distinction between important words and unimportant words comparing other words in the text [see Yoshimi *et al.*, col. 13, lines 1-35), which benefits the keyword generation presented by Kiyama *et al.* in view of Xun by detecting keywords denoted by font for faster assignment of keywords to text.

As to claims 6 and 11, Kiyama *et al.* in view of Xun in view of Yoshimi *et al.* teach all of the limitations as in claims 5 and 10, above.

Furthermore, Yoshimi *et al.* teaches the extraction of important words based on font (see col. 13, lines 1-35, character ornament, style and size is detected for important word).

Furthermore, Kiyama *et al.* teaches the step of subsequently identifying said string as a word and phrase (see col. 5, lines 48-55) , which is specific to said particular domain.(see Figure 9 and 16) (e.g. The occurrence frequency is used to determine the domain for which the keywords extracted from a text document belongs to.).

(10) Response to Argument

For the above reasons, it is believed that the rejections should be sustained.

Claims 3 and 4-7 Rejected under 35 U.S.C. §101

12. Appellant asserts on pages 5 and 6:

> At the outset, Appellants note that the Examiner has neither alleged nor provided any substantial evidence to support a finding that claim 3 attempts to claim either a fundamental principle or a mental process. Therefore, the Examiner's has failed to set forth a prima facie case under 35 U.S.C. § 101....
>
> Turning to the first branch, the Examiner has failed to present any substantial evidence to support a finding that claim 1 is not tied to a particular machine or apparatus. The lack of the Examiner's analysis notwithstanding, paragraph [0017] described that the claimed keyword generation process "can be programmed." As recognized by one having ordinary skill in the art, an abstract idea is not programmed. Instead, only a device (e.g., a computer device) can be programmed. Thus, the method of claim 3 is tied to a particular apparatus and meets the first test, claim 1 is directed to statutory subject matter under 35 U.S.C. § 101.
>
> As to the second branch, claim 3 transforms a particular article into a different state or thing. As recited in claim 3, "a list of keyword candidates is added to, and a counter is incremented. The acts of "adding" and "incrementing" transform one set of data into another. Therefore, claim 3 is also directed to statutory subject matter under 35 U.S.C. § 101 since claim 3 transform a particular article into a different state or thing.

In response to the Applicant's arguments that the limitations of claim 3 constitutes a statutory process under §101 since the claimed keyword generation process can be programmed, thus inherently being done by a computer device and that the steps of incrementing and adding transform one set of data into another, the Examiner cannot concur. The claimed steps of "locating", "adding", "incrementing," and "selecting" are of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. The Applicant has provided no explicit and deliberate definitions of "locating", "adding", "incrementing," and "selecting" to limit the steps to the stated steps being done by processor. The claims are

broad enough to read on a human reading a textual paper, where the individual locates words and adds such words on another piece of paper, where multiple words that appear on the list are incremented by the individual by tallying as each word is found and words that have the highest value from the tally are written on another paper. Hence, the stated process is fully capable of being done by a human without the aide of a machine.

The cited claim also fails the machine-transformation test. The claim is not tied to a particular machine or manufacture as the claim does not contain any elements that would tie the claim to a specific hardware or structural component. The Applicant refers to a portion of the Specification stating in paragraph [0017] that such "can be programmed." The Examiner does not concur. The first matter of issue is that limitations of the specification are not read into the claims but read in light of the specification. As a result, the fact the something "can be programmed" does not provide sufficient evidence that the claim only is performed by a computing device. The section does not rule out the stated functions being performed by a human.

Furthermore, with respect to the second portion of the machine-or-transformation test, the Applicant believes that the stated claim 3, transforms one set of data into another by the acts of "adding" and "incrementing." The Examiner does not concur. The second part of the inquiry states that the transformation is the transforming a particular article into a different state or thing. The Applicant's reasons for the transforming by "adding" to a list and "incrementing" a counter does not result in a transformation into a different state or thing. The "adding" and "incrementing" steps only modifies an existing

value by updating what has already been present. It does not transform some type of physical entity into another physical entity. In other words, the stated steps only adds to an existing list or value without changing its state.

Claim 1 Rejected under 35 U.S.C. §103 under Kiyama in view of Xun in view of Ho

Appellant Asserts on pages 11 and 12:

> The claimed invention and the Examiner's other two cited references of Kiyama and Ho are directed to keyword generation with the keywords being used to enable the efficient searching/characterization of data/content. In a very different field, Xun teaches a natural language translator with the specific disclosure being related to an application for identifying base noun phrases. Referring to column 4, lines 63-67, the shallow parser 140 of Xun characterizes the words and phrases for further translation selection. As would be recognized by those skilled in the art of translation, a word in one language may be translated in a phrase of another language and vice-versa. Not only is Xun outside the field of endeavor of the present application, the Examiner has failed to establish that Xun is reasonably pertinent to a known need or problem in the field of endeavor. Thus, Xun is non-analogous prior art.... The Examiner's alleged "obviousness analysis" is woefully inadequate. As reproduced above, the Examination Guidelines state that the Examiner must articulate certain findings of fact with regard to each of the rationales. This burden has not been met or even attempted to be met.

In response to the Applicant's argument stating that the secondary reference of Xun is non-analogous prior art and that the "obviousness analysis" is woefully inadequate, the Examiner cannot concur. The secondary reference of Xun is in the field of natural language processing. Further, the primary reference of Kiyama also is in the field of natural language processing, where language processing (keywords assignment) is performed for an input document (see col. 4, lines 57-63). Furthermore,

Kiyama supports the division or parsing of textual input into one or more words (see col. 4, lines 57-63 and see col. 6, lines 57-61 and Figure 5, header strings). The secondary reference of Xun also is in the same field of endeavor as Kiyama since the parser of Xun allows parsing of a textual document as in Kiyama into individual words and phrases (see col. 4, lines 33-36). Hence, the two references are in the same field of endeavor, which in this case is natural language processing of a textual document. Further, the reference is reasonably pertinent to a known problem, which in this case is the parsing of text into phrases. Xun realizes the identification of phrases in col. 1, lines 40-57, where the identification of phrases are important for language processing applications, such as information retrieval and parsing. The secondary reference of Xun is analogous art.

In response to the obviousness analysis being inadequate, the Examiner cannot concur. The obviousness analysis was presented in a manner that described the differences between the primary reference (Kiyama) and the claimed invention. With respect to rationale B, Xun was shown to remedy the deficiencies of Kiyama where a parser for parsing text into phrases and words was provided. Since, as mentioned above, Kiyama and Xun are analogous art and the modification of the parsing as taught by Xun further enhances the parsing done by Kiyama by the keywords being phrases, where Kiyama teaches parsing of one or more words in col. 6, lines 57-61 and Figure 5, header strings. The substitution of the parser of Kiyama with that of Xun allows translation units to be generated as pointed out by the Applicant, which are phrases and words (see col. 4, lines 35-36.

With respect to rationale D, it was shown in the rejection above (see Grounds for Rejection section), that Kiyama discloses a parsing mechanism that parses text into one or more words for the keyword generation. Further, the prior art of Xun was described to contain the missing feature and is applicable, as in Xun described above, text is parsed into individual words and phrases, where the applicability is the relevance of the primary and secondary reference to natural language processing of a textual document. Thus, the combination would have enabled one of ordinary skilled in the art to parse textual elements into phrases and words for the predictable result of obtaining individualized pieces of information (phrases and words) for retrieval (see Xun col. 1, lines 53-57) of information which would benefit the system of Kiyama to determine keywords.

With respect to rationale E, it was shown in the rejection above (see Grounds for Rejection section), that Kiyama discloses a parsing mechanism that parses text into one or more words for the keyword generation. A person of ordinary skilled in the art, upon reading the reference, would have recognized the desirability of improved methods of modifying the parser of Kiyama to include phrases. Xun teaches one of a finite number of parsers that enable parsing text into phrases and words. Xun's parser teaches the parsing mechanism that would reasonable have been expected to be applicable to the parser of Kiyama. Further, Xun discloses the use of such results being used for retrieval purposes in natural language applications (see Xun col. 1, lines 53-57). Thus, the parser of Xun would improve the parsing mechanism of Kiyama to allow phrases to be registered as keywords as Kiyama has already recognized the parsing of words of length greater than one.

Appellant Asserts on pages 15-17:

The Examiner's asserted motivation for the combination (i.e., "for reduction in memory as would be apparent to one skilled in the art") is completely unsupported by the teachings of the applied prior art. A discussion of "reduction is memory" is nowhere to be found in the teachings of Ho. Moreover, the teachings of Ho actually teach the opposite. Specifically, referring to Fig. 4 and column 6, lines 31-36, Ho describes the use of three separate dictionaries (i.e., a common dictionary 202, a negative dictionary 204, and a domain-specific dictionary 206), which would increase the amount of memory needed, as compared to the "keyword-negligible word dictionary d" taught by Kiyama. Since the Examiner's proposed common sense rationale for modifying Kiyama in view of Ho is not supported by the teachings of the applied prior, Appellants must presume that the Examiner's only rationale for combining the applied prior art in the manner suggested was based upon impermissible hindsight reconstruction based upon the teachings of Appellants' disclosure....

The Examiner's new alleged rationale for the combination is the benefit of "quicker retrieval." However, the quicker retrieval described by Ho relates to helping a search engine respond to a user's question (see the Examiner's cited passage within Ho of column 4, lines 20- 23). Such a benefit, however, does not apply to the primary reference of Kiyama. The "general dictionary" of Kiyama is used to identify words in text (see column 4, lines 58-63). A content- based dictionary, however, would include a reduced number of words. This reduced number of words might be useful in providing quicker retrieval based upon a content-related query to search engine. However, when the dictionary is used to identify words in a text, the absence of certain words in the context-base dictionary would lead to certain words of the text not being identified. If these certain words of the text were not identified, based upon the teachings of Kiyama, these words could not be classified. Thus, the Examiner's proposed modification would reduce the capabilities of Kiyama's system, and thus, Appellants' position is that such a modification would not have been obvious to one having ordinary skill in the art.

In response to the Applicant's argument stating that the Examiner's asserted motivation is completely unsupported or reduction in memory, the Examiner cannot concur. The Examiner withdrew such statement upon writing of the subsequent action. Hence, such argument had not been addressed.

Further, the Applicant argues that since the rationale for modifying Kiyama in view of Ho is not supported by the teaching of the prior art that such rationale for

combining is as a result of impermissible hindsight reconstruction, The Examiner cannot concur. Motivation was presented from the tertiary reference of Ho to support the modification of the dictionary of Kiyama to that of domain based dictionaries as taught by Ho. Specifically, in col. 4, lines 60, Kiyama teaches the use of a general dictionary for dividing text into words. The tertiary reference of Ho enables the use of domain based dictionary with respect to the domain being used as seen in col. 6, lines 62-col. 7, lines 8. The use of such domain based dictionaries enables the increasing the processing speed of information, therefore reducing the search time and allows relevant retrieval of information as stated in Ho, col. 4, lines 20-22 and lines 35-39. Although, Ho is related to responding to the user's question, in Kiyama the benefit is apparent by the use of a general dictionary in col. 4, lines 59-61, to parse words, where the modification to a domain based dictionary enables the relevant dictionary in regards to the context or domain to be chosen and enables search time of words within the relevant dictionary to be reduced, which is described in the above cited sections of Ho. Furthermore, the proposed modification would reduce the capabilities of Kiyama but would enhance the parsing operation for determining keyword candidates in Kiyama.

Claim 3, 7-8, and 12 are Rejected under 35 U.S.C. §103 under Kiyama in view of Xun

Since the claims stand or fall with independent claim 1, please see the arguments presented in claim 1.

Claim 2 is Rejected under 35 U.S.C. §103 under Kiyama in view of Xun in view of Hita

Since the claims stand or fall with independent claim 1, please see the arguments presented in claim 1.

Claims 4 and 9 are Rejected under 35 U.S.C. §103 under Kiyama in view of Xun in view of Hita

Since the claims stand or fall with independent claim 1, please see the arguments presented in claim 3.

Claims 5-6 and 10-11 are Rejected under 35 U.S.C. §103 under Kiyama in view of Xun in view of Yoshimi

Appellant Asserts on pages 20:

Appellants respectfully submit that the Examiner's proposed combination is not supported by the teachings of Kiyama and Yoshimi. Yoshimi describes locating words based upon font attributes for the purpose of analyzing text structure. This is not comparable to generating a list of keywords for particular content. Also, although the Examiner asserts that Yoshimi distinguishes between important words (i.e., allegedly those words with a variation in font attributes) and unimportant words, the Examiner has failed to establish that one having ordinary skill in the art, based upon the teachings of Kiyama, would consider that distinguishing words or phrases by importance would be valuable.

Based upon the teachings of Kiyama, apparently all of the words within the content are parsed and the results stored in a word partition table b (see column 4, lines 61-63). Thus, all the words in the content are already added to "said list of keyword candidates." Since, as taught by Kiyama, all the words in the content are added the list of keyword candidates, there would be no need to "[select] a string in said selected portion of content affect by said variation," as claimed, and "[add] said string to said list of keyword candidates." To do so would be redundant, and thus not obvious.

Appellant Asserts on pages 21 and 22:

As already discussed in Appellants' original argument, Kiyama identifies all words. The dictionary referred to by the Examiner is used by Kiyama to confirm that that the portion of text data is a word. Contrary to the Examiner's assertion, Yoshimi does not teach an alternative method of detecting words. Instead, Yoshimi teaches a method of detecting important words. However, as already argued, Kiyama is indifferent to important words since all words are considered by Kiyama. To modify Kiyama in view of Yoshimi would be to add complexity without any benefit.

Appellants also notes that the Examiner does not even establish a rationale why one having ordinary skill in the art would have been realistically impelled to modify Kiyama in view of Yoshimi. Instead, the Examiner merely states that Yoshimi is an alternative. Although the Examiner asserts on page 11 of the Third Office Action that the benefit would be "for faster retrieval of possible keywords," the Examiner has failed to produce any substantial evidence to support such an allegation. Not only has the Examiner failed to produce any substantial evidence, the Examiner has not even set forth a reasoned explanation as to why one having ordinary skill in the art would have had an expectation of success in realizing a substantial benefit from the modification. Since Kiyama already teaches identifying all the words, the Examiner's proposed modification would appear to slow down Kiyama by adding additional steps.

In response to the Applicant's arguments above (arguments on both pages relate to the combination of Kiyama in view of Yoshimi where the Applicant points out the indifference to important words), stating that the Examiner has failed to establish how one would consider distinguishing words or phrases by importance would be valuable and further states that the adding of words affected by variation would be redundant and thus not obvious, the Examiner cannot concur. Specifically, in Kiyama col. 4, lines 60-61 and col. 5, lines 36-40, describes the process of dividing text data and extracting candidate keywords. The tertiary reference of Yoshimi enables the detection of words based upon font attributes as taught in col. 13, lines 1-35. The modification of Kiyama with the detection as taught by Yoshimi would not be redundant as Yoshimi allows for

the detection of important words in a text based on the style, ornament, and size of the word rather than referring to the dictionary for possible keyword candidates for the divided words, which would enable the adding of candidate keywords to text (see Yoshimi, col. 13, lines 1-35, where the ornament, style and size, are used to match a predetermined word with same attributes for detection of important words) for key words not found in the dictionary but are known in advance, which would be valuable to the invention of Kiyama for faster keyword determination as would be known to one skilled in the art since the important words that have specific font attributes are predetermined with respect to specific words for identifying and detecting these font attributes since dictionary look-up need not be used for those words detected (see Yoshimi for example, in col. 13, lines 6-11) and enables words not found in the dictionary to be registered based on the pre-determined word with attributes that are known to be important words as taught by Yoshimi.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

Paras Shah

Conferees:

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